

## **Responses to Comments Provided by MDNR in its January 29, 2015 Letter**

On January 29, 2015, MDNR issued several comments to the Preliminary Volume Estimates for EPA's Partial Excavation Options. The majority of the comments misunderstand the purpose of the preliminary volume estimate step directed by EPA and more detailed information relevant to these issues is provided in the PRPs response to EPA comments. However, the PRPs are providing EPA with additional comment response as appropriate below.

### **Comment:**

#### Volume Calculations

Please include calculations for the volume of assumed principal threat waste that may be removed under each of the partial excavation scenarios in order to provide such information to EPA for consideration in selecting the appropriate scenario to include in the Partial Excavation Alternative analysis.

EPA requested by letter dated October 12, 2012 that the Partial Excavation Alternative analysis be conducted "at a level of detail comparable to the alternatives already analyzed in the SFS." The SFS states in Section 2.2.8, page 22, "Because the purpose of the SFS is to provide a thorough evaluation of the potential 'complete rad removal' alternatives relative to the ROD- selected remedy, it is conservatively assumed that principal threat wastes may be present within OU-I." The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) states that EPA expects to use "treatment to address the principal threats posed by a site, wherever practicable." The SFS goes on to state in Section 6.1.4, page 142, "The NCP prefers remedial actions in which treatment is used to reduce the principal threats at a site through destruction of toxic contaminants, irreversible reduction in contaminant mobility, or reduction of total volume of contaminated media." These NCP expectations are presented in EPA's guidance titled, "A Guide to Principal Threat and Low Level Threat Wastes," November 1991.

Therefore, for each of the scenarios presented in this document (i.e. 79 pCi/g, 1,000 pCi/g, and 16-foot scenario); please include calculations for the volume of assumed principal threat waste that may be removed. Also please include discussion on how each scenario will result in reduction in contaminant mobility (i.e. placement of partial excavation materials in a properly engineered disposal cell). The information on reduction of volume and mobility of principal threat wastes under each scenario should be provided to EPA for consideration in selecting the appropriate scenario to include in the Partial Excavation Alternative analysis per the NCP expectations. The Partial Excavation Alternative analysis will then be included in the addendum to the SFS in order to perform remedial alternative analysis and ultimately, selection of a final remedy.

**Response:** EPA previously determined that the Site does not contain principal threat wastes (see OU-1 Record of Decision at pp. xi, xii, and 42). MDNR concurred with the remedy selected by EPA in the 2008 ROD and the appropriateness of a containment remedy for the Site (see OU-1

Record of Decision at p. 41). Furthermore, the specific radionuclides and associated activity levels present in the waste materials at West Lake Landfill are the same as those that were present in the North County sites where EPA also determined no principal threat wastes existed (see the 2005 North St. Louis County Sites Record of Decision at pp. 1-2, 1-3 and 2-76, which determination also received MDNR's concurrence). In addition, the partial excavation options identified by EPA were not based on the materials included in each option being characterized as Principal Threat Wastes, nor does excavation qualify as "treatment" under the NCP.

Furthermore, EPA specifically requested at a meeting on September 24, 2013 that only preliminary volume estimates (referred to by EPA as "back of the envelope" estimates) of the volumes of RIM associated with each of the three partial excavation options identified by EPA be developed. EPA specifically indicated that it was not requesting detailed volume estimates for these options or any other evaluations at that time. It is anticipated that if EPA selects a particular partial excavation alternative for further evaluation, more precise evaluations of the volumes of material, potential risks, and other factors associated with such an alternative will be developed.

**Comment:**

Uncertainties

The Department does not understand the purpose of Section 4 within this document and suggests it be removed. The second sentence of Section 4 states, "The 'back of the envelope' estimated volumes for the three partial excavation scenarios were not developed to the same level of detail as was attained for the 'complete rad removal' alternatives presented in the SFS." However, the document states in Section 2.1, page 3, "Intervals containing or suspected to contain radionuclide activities above the 79 pCi/g / 60,000 cpm criteria were then plotted in three dimensions and located within the overall waste mass using the same methodology as was employed to estimate the volume of solid waste materials to be removed under the "complete rad removal" alternative of the SFS." A similar statement exists in Section 2.2 for the 1000 pCi/g / 500,000 cpm scenario. This directly contradicts the uncertainty argument. Therefore, we suggest removing Section 4 from the document.

In addition, reference to fill placed under the Materials Management Plan (MMP) should not be considered in the feasibility of a partial excavation alternative as the intent of the MMP was to "not prejudice the selected remedy or preclude any of the potential remedial alternatives" and have "no effect on the implementability of any of the potential remedial actions". This section appears to be an attempt to include arbitrary argument in order to prejudice the partial excavation alternative which was not requested by EPA. Again, we suggest removing this section and all references to it from the document.

**Response:** Although the same data and the same overall general approach was used to identify the volumes of RIM associated with each of the three partial excavation options identified by EPA, in keeping with EPA's request for "back of the envelope" (i.e., preliminary) estimates of the volume of RIM associated with each option, detailed cut-and-fill and grading plans and

detailed treatment of the conditions along the edge of the RIM extent were not prepared for these options. Therefore, the volumes presented for the three options have not been calculated to the same level of detail as was used to calculate the of the volume estimates for the “complete rad removal” alternatives. Once EPA selects a particular partial excavation alternative for evaluation in the Supplemental SFS report, cut-and-fill and grading plans and detailed volume estimates similar to those used for the “complete rad removal” alternatives in the SFS will be prepared (please also see our response to EPA’s second comment on page 2 of the report).

The only reason that the Materials Management Plan (MMP) was identified in the report was to indicate that additional inert fill has been placed over portions of Areas 1 and 2 (in accordance with the approved MMP) since performance of the RI investigations. Therefore, although the 16-foot depth option was evaluated using the arbitrary depth cutoff of 16 feet identified by EPA (based on the 2005 topographic surface which pre-dates placement of the additional inert fill), going forward, the actual depths required to remove the same materials would in some locations be greater than 16 feet as a consequence of placement of the additional inert fill material. The discussion in the text was not related to or intended to provide any suggested constraints on the implementability of such a partial excavation option but rather was intended to point out that if this alternative were to be evaluated further, simple use of an arbitrary 16-foot depth cutoff may need to be revised to reflect the current topography of the site (please also see our response to EPA’s comment on page 8 of the report).